Research Project 'Interactive Cloud' 2009

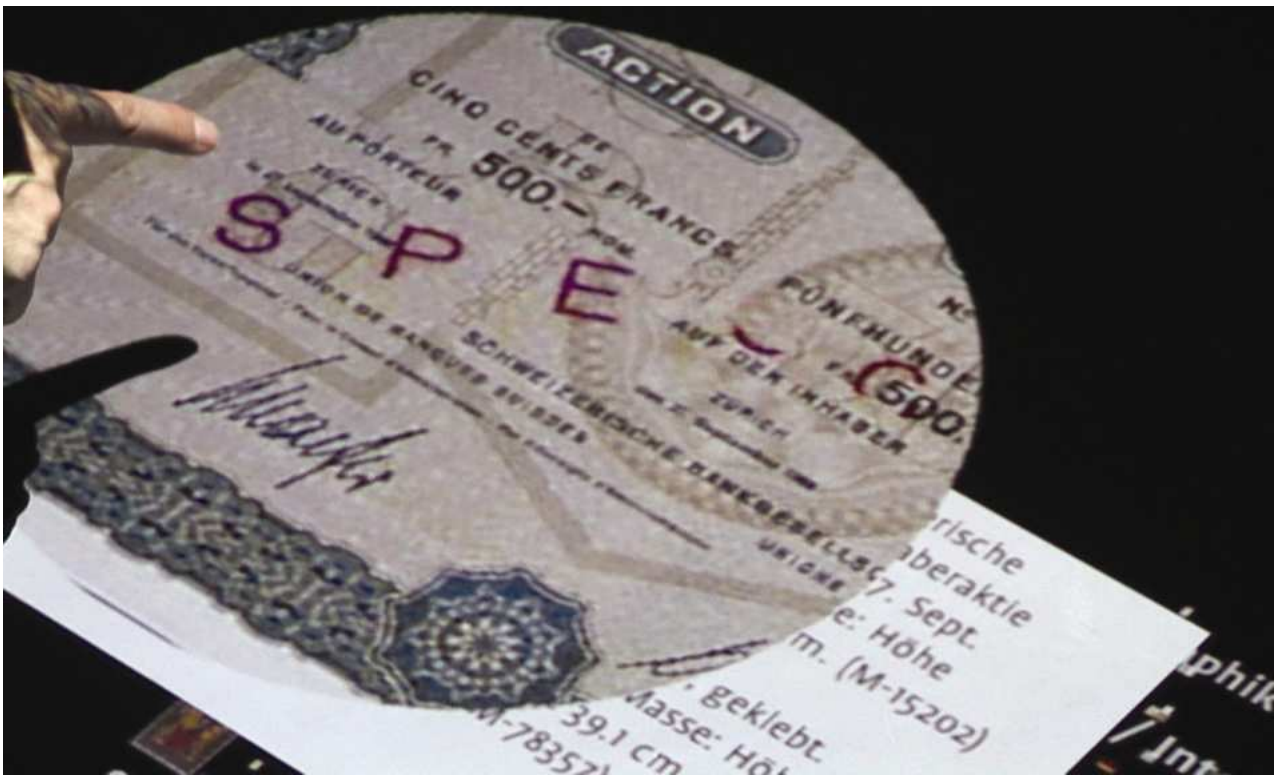
A New Development for Access to Large Collections

Developed in response to a commission from the Swiss National Museum, the 'interactive cloud' is a new media tool which supports intuitive and playful access to a large fund of objects and their associated contexts. Without any directly visible technology, you can access virtual objects or associative concepts, along with the information linked with them, at any place that takes your interest. In design terms, the content is arranged in a three dimensional cloud-like interface. With the help of elaborate projection technology mounted on the ceiling, backed up by camera recognition, the 'interactive cloud' can be presented on any spatial surface. The projection appears as soon as the visitor approaches an exhibit. When you touch the virtual objects in the cloud, the associated reference images and information will be brought up immediately.

iart is working on tools of superimposed virtual worlds to transfer information and emotions connected with exhibits to visitors standing before them, without having to implement visible hardware in the exhibition. Today, interactive tables are becoming increasingly sophisticated and common in exhibitions.

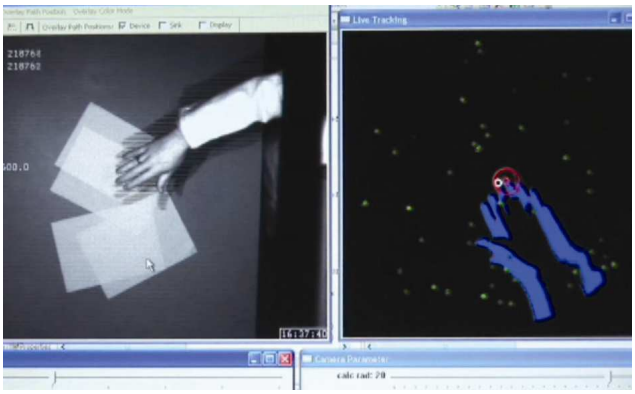
After having conceived a first interactive table for the Jewish Museum in Berlin in 2003, iart has developed a number of such tables and other solutions for interactive interfaces over the years. Since a media tool of this kind always lays claim to a significant part of the exhibition space, which could be better used for the presentation of exhibits, iart has enhanced the idea of the interactive table and is developing a flexible tool which is free from perceivable hardware and furnishing, allows direct access to content wherever visitors wish for information and even adapts content to their personal needs and interests.

The tool relevant to museums currently being developed by iart has the working title 'interactive cloud'. It consists of an interactive interface which can be projected onto every surface in the room by reflection via a movable mirror on the ceiling. There is no need to install any hardware in the exhibition itself. The only thing



perceivable to visitors is the projected virtual interface, which moves to e.g. the floor, the showcase or the wall next to the object of interest as soon as the visitor advances towards it. The 'interactive cloud' allows a multilayered exhibition in which virtual "exhibits" are presented side by side with the real objects. This will be very useful for museums with a wide range of objects, which generally lie motionless and mute in museum showcases or languish in depositaries because there is no room to display them. A range of words, numbers or pictures appear next to the original. These "teasers" are connected to the displayed objects in some way and are arranged according to shared categories like age, size, material, technique, color, form, etc. By holding one hand in front of the surface an so touching one of the figures with the white ring, the visitor navigates to a deeper level of the cloud and gets the opportunity to e.g. virtually experience the functions, construction and sound of an object, to explore its context or to discover reference objects and their further contexts.

Interaction within the interactive cloud



Camera recognition of hand and shadow

Client and Customer
Swiss National Museum Zurich for the first phase of development

Services iart
Concept, research and development, planning, realisation

Media and Content
XG4 Projector
IR-Camera
4 Point IR-Illumination
DMX Mirror Head
Pictures and texts by the Swiss National Museum

Project Duration
1 year

Exhibition Duration
Not in use yet,
Nominated and displayed by the Design Preis Schweiz 2009

Exhibition Area
Flexible usability: projection on wall, floor, showcase, table, etc.